



# INDIANA DEPARTMENT OF TRANSPORTATION

*Driving Indiana's Economic Growth*

## Memorandum

January 14, 2008

### CONSTRUCTION MEMORANDUM

08-01

TO: District Deputy Commissioners  
District Highway Operation Directors  
District Construction Engineers  
District Testing Engineers  
District Area Engineers  
Project Engineers/Supervisors

FROM: Mark A. Miller, Director *Mark A. Miller*  
Division of Construction Management

SUBJECT: Security of Nuclear Moisture/Density Gauges

Recently INDOT received a fine from the Nuclear Regulatory Commission as an enforcement action in response to an incident in which a gauge was stolen from a jobsite and later recovered.

A copy of the notice is attached. This incident highlights the importance of maintaining constant surveillance and control of the gauges at all times. The gauge was out of sight of the operator for a very short period of time. The Department was cited for not following our procedures in this incident and for another incident in which a gauge was not properly secured in a vehicle. Future violations of safety procedures may result in stricter enforcement actions against the Department and possible disciplinary action for the gauge operator.

Please remind all employees responsible for gauges to follow the safety procedures to the letter. Also ensure all gauge operators have received refresher safety training per the prescribed schedule. The District Radiation Safety Officer can provide instruction and answer any questions related to the safety procedures. While some of the safety procedures related to locking and storing the gauge when not in use for short periods of time may seem tedious and time consuming, they are designed to deter theft or unauthorized use. This incident exemplifies how quickly and easily a gauge can be stolen.

The Department is researching other equipment that can be used for efficiently measuring soil moisture and density. We are maintaining the nuclear gauge inventory at present because the nuclear gauge provides a rapid and accurate measurement. Repeated safety violations may lead to the retirement of our nuclear gauge inventory and require the use of more time consuming and labor intensive methods of soil testing.

MAM

Attachment



# NRC NEWS

U.S. NUCLEAR REGULATORY COMMISSION

Office of Public Affairs Region III  
2443 Warrenville Road  
Lisle IL 60532

No. III-07-027  
Contact: Viktoria Mitlyng  
Phone: 630-829-9662

December 18, 2007  
E-Mail: opa3@nrc.gov  
Web site: www.nrc.gov

## **NRC PROPOSES \$3,250 FINE AGAINST INDIANA DEPARTMENT OF TRANSPORTATION FOR FAILURE TO PROPERLY SECURE NUCLEAR GAUGES**

The Nuclear Regulatory Commission has proposed a \$3,250 fine against the Indiana Department of Transportation, located in Greenfield, Ind., for violations of NRC requirements associated with two incidents of failure to use proper methods to secure a gauge containing nuclear material.

The first incident occurred on Sept. 10, when a portable nuclear gauge belonging to the state agency was stolen from a temporary job site in Indianapolis, Ind. The gauge was being used to measure the density of certain materials at a road construction site. The gauge operator had left the instrument unsupervised, on the ground, behind a pick-up truck for three to five minutes. During this time, the gauge was stolen. The gauge was recovered two hours later in a vacant lot.

The gauge was not damaged during the incident and the source containing nuclear material remained in a shielded position. There was no threat of radiation exposure to the public.

On Sept. 18, the Nuclear Regulatory Commission conducted a special inspection to review the circumstances of the theft, its causes, and Indiana Department of Transportation's proposed corrective actions. During the inspection, NRC inspectors observed another instance of inadequate implementation of physical protection requirements for nuclear material. A gauge was not properly secured in the back of a pick-up truck.

"Although there were no actual safety consequences resulting from these violations," said NRC Region III Administrator James Caldwell, "the NRC considers the loss of nuclear material, even if temporary, as a very serious matter. We expect organizations licensed by the NRC to possess nuclear material to follow federal regulations to ensure the safety of this material at all times."

The state agency has taken corrective actions to address the violations: all the agency's operators completed a refresher course on proper handling and transporting of nuclear gauges; the operator responsible for the violations has been reprimanded; all nuclear gauge operators will have to attend biennial refresher training; random check at temporary job locations will be performed to verify compliance with NRC regulations; and the Indiana agency will address safety and security of nuclear gauges at a state-wide Annual Indiana Department of Transportation Construction Conference in early 2008.

The Indiana Department of Transportation has until Jan. 12, 2008, to pay the fine or to protest it. If the fine is protested and subsequently imposed by the NRC staff, the company may request a hearing.

The letter notifying the state agency of the proposed fine has been posted to the NRC web site at: <http://www.nrc.gov/about-nrc/regulatory/enforcement/current.html#materials>.

###

NRC news releases are available through a free list serve subscription at the following Web address:  
<http://www.nrc.gov/public-involve/listserver.html> . The NRC homepage at [www.nrc.gov](http://www.nrc.gov) also offers a SUBSCRIBE link. E-mail notifications are sent to subscribers when news releases are posted to NRC's Web site.